What Is Claimed:

1.   A method of identifying whether a sequence is a semantic unit, the method comprising:

calculating a first value representing a coherence of terms in the sequence;

calculating a second value representing variation of context in which the sequence occurs; and

determining whether the sequence is a semantic unit based at least in part on the first and second values.

2.   The method of claim 1, wherein the coherence of the terms in the sequence is calculated relative to a collection of documents.

3.   The method of claim 2, wherein the coherence of the terms in the sequence is calculated as a likelihood ratio that defines a probability of the sequence occurring in the collection of documents relative to parts of the sequence occurring.

4.   The method of claim 2, wherein the coherence of the terms in the sequence is calculated as:

$$LR(A,B) = \frac{L(f(B),N)}{L(f(AB),f(A)) \cdot L(f(\sim AB),f(\sim A))},$$

where $f(A)$ defines a number of occurrences of term A in the collection of documents, $f(\sim A)$ defines a number of occurrences of a term other than term A in the collection of documents, $f(B)$ defines a number of occurrences of term B in the collection of documents, N defines a total number of events in the collection of documents, $f(AB)$ defines a number of times term A is followed by term B in the collection of documents, and $f(\sim AB)$ is a number of times a term other than A is followed by term B in the collection of documents, wherein

$$L(k,n) = \left(\frac{k}{n}\right)^{k} \cdot \left(1 - \frac{k}{n}\right)^{(n-k)}.$$

5.   The method of claim 1, wherein the coherence of the terms in the sequence are defined as not being sufficient unless a threshold is met.

6.   The method of claim 5, wherein the threshold is defined as:

$f(AB) > \dfrac{f(A) \cdot f(B)}{N}$, where $f(A)$ defines a number of occurrences of term A in the collection of documents, $f(B)$ defines a number of occurrences of term B in the collection of documents, N defines a total number of events in the collection of documents, and $f(AB)$ defines a number of times term A is followed by term B in the collection of documents.

7.   The method of claim 1, wherein the variation of context in which the sequence occurs is calculated relative to a collection of documents.

8.   The method of claim 7, wherein the variation of context in which the sequence occurs is calculated as a measure of entropy of the context of the sequence.

9.   The method of claim 7, wherein the variation of context in which the sequence occurs, $H(S)$, is calculated as

$$HM(S) = MIN(HL(S), HR(S)),$$

$$HLM(S) = -\sum_w \frac{f(wS)}{f(S)} \cdot \log\left(\frac{f(wS)}{f(S)}\right),$$

and

$$HR(S) = -\sum_w \frac{f(Sw)}{f(S)} \cdot \log\left(\frac{f(Sw)}{f(S)}\right),$$

where MIN defines a minimum operation, S represents the sequence, $f(wS)$ defines a number of times a particular term, w, appears in the collection of documents followed by the sequence, $f(Sw)$ refers to a number of times the sequence is followed by w in the collection of documents, and $f(S)$ refers to a number of times the sequence S is present in the collection of documents.

10.   The method of claim 7, wherein the variation of context in which the sequence occurs, $HM(S)$, is calculated as

$$HM(S) = MIN(HLM(S), HRM(S)),$$

where MIN defines a minimum operation, HLM*(S)* is defined as a minimum of

$1 - \dfrac{f(wS)}{f(S)}$ for each term w in the collection of documents, *HRM(S)* is defined as a

minimum of $1 - \dfrac{f(Sw)}{f(S)}$ for each term *w* in the collection of documents, *f(wS)*

defines a number of times a particular term, *w,* appears in the collection of

documents followed by the sequence, *f(Sw)* refers to a number of times the

sequence is followed by *w* in the collection of documents, and *f(S)* refers to a

number of times the sequence is present in the collection of documents.

      11.   The method of claim 7, wherein the variation of context in which the

sequence occurs, *HC(S),* is calculated as

$$HC(S) = MIN(HLC(S), HRC(S)),$$

where MIN defines a minimum operation, *HLC(S)* is defined as $\sum_{w} \delta(wS)$ and

HRC(S) is defined as $\sum_{w} \delta(Sw)$, where $\delta(X)$ is defined as one if sequence *X*

occurs in the collection of documents and zero otherwise, where wS refers to a

particular word followed by the sequence, and where Sw refers to the sequence

followed by a word.

      12.   The method of claim 7, wherein the variation of context in which the

sequence occurs, *HP(S),* is calculated as

$$HP(S) = MIN(HLP(S), HRP(S))$$

where MIN defines a minimum operation, *HLP(S)* is defined as the number of continuations to the left of the sequence that cover a predetermined percentage of all cases in the collection of documents and *HRP(S)* is defined as the number of continuations to the right of the sequence that cover the predetermined percentage of all cases in the collection of documents.

13.   The method of claim 1, wherein determining whether the sequence is a semantic unit includes comparing the first and second values to first and second thresholds and identifying the sequence as a semantic unit when the first and second values satisfy the first and second thresholds.

14.   The method of claim 1, wherein the sequence includes three or more words.

15.   The method of claim 1, further including:

applying one or more rules to the sequence, and

wherein determining whether the sequence is a semantic unit is further based at least in part on the application of the one or more rules.

16.   A device comprising:

a coherence component configured to calculate a coherence of multiple terms in a sequence of terms;

a variation component configured to calculate a variation of context terms in a collection of documents in which the sequence occurs; and

a decision component configured to determine whether the sequence constitutes a semantic unit based at least in part on results of the coherence component and the variation component.

17.   The device of claim 16, wherein the context terms include terms to the left and right of the sequence.

18.   The device of claim 16, wherein the coherence of the terms in the sequence is calculated relative to the collection of documents.

19.   The method of claim 18, wherein the coherence of the terms in the sequence is calculated as a likelihood ratio that defines a probability of the sequence occurring in the collection of documents relative to parts of the sequence occurring.

20.   The device of claim 16, wherein the variation of context in which the sequence occurs is calculated as a measure of entropy of the context of the sequence.

21.   The device of claim 20, wherein the variation of context in which the sequence occurs, $H(S)$, is calculated as

$$H(S) = MIN\big(HL(S), HR(S)\big),$$

$$HL(S) = -\sum_w \frac{f(wS)}{f(S)} \cdot \log\left(\frac{f(wS)}{f(S)}\right),$$

and

$$HR(S) = -\sum_w \frac{f(Sw)}{f(S)} \cdot \log\left(\frac{f(Sw)}{f(S)}\right),$$

where *MIN* defines a minimum operation, S represents the sequence, *f(wS)*

defines a number of times a particular term, *w*, appears in the collection of

documents followed by the sequence, *f(Sw)* refers to a number of times the

sequence is followed by *w* in the collection of documents, and *f(S)* refers to a

number of times the sequence S is present in the collection of documents.

22.   The device of claim 20, wherein the variation of context in which the

sequence occurs, *HM(S)*, is calculated as

$$HM(S) = MAX\big(HLM(S), HRM(S)\big),$$

where MIN defines a minimum operation, HLM*(S)* is defined as a minimum of

$1 - \dfrac{f(wS)}{f(S)}$ for each term w in the collection of documents, *HRM(S)* is defined as a

minimum of $1 - \dfrac{f(Sw)}{f(S)}$ for each term *w* in the collection of documents, *f(wS)*

defines a number of times a particular term, *w*, appears in the collection of

documents followed by the sequence, *f(Sw)* refers to a number of times the

sequence is followed by *w* in the collection of documents, and *f(S)* refers to a

number of times the sequence is present in the collection of documents.

23. The device of claim 20, wherein the variation of context in which the sequence occurs, *HC(S),* is calculated as

$$HC(S) = MIN(HLC(S), HRC(S)),$$

where MIN defines a minimum operation, *HLC(S)* is defined as $\sum_w \delta(wS)$ and

HRC(S) is defined as $\sum_w \delta(Sw)$, where $\delta(X)$ is defined as one if sequence X

occurs in the document collection and zero otherwise, where wS refers to a particular word followed by the sequence, and where Sw refers to the sequence followed by a word.

24. The device of claim 20, wherein the variation of context in which the sequence occurs, *HP(S),* is calculated as

$$HP(S) = MIN(HLP(S), HRP(S))$$

where MIN defines a minimum operation, *HLP(S)* is defined as the number of continuations to the left of the sequence that cover a predetermined percentage of all cases in the collection of documents and *HRP(S)* is defined as the number of continuations to the right of the sequence that cover the predetermined percentage of all cases in the collection of documents.

25. The device of claim 16, wherein the decision component is further configured to compare the results of the coherence component and the variation

component to threshold values and identify the sequence as a semantic unit based on at least in part on the comparisons.

26.   The device of claim 16, further comprising:

a heuristics component configured to apply one or more predefined rules to the sequence, wherein the decision component is further configured to determine whether the sequence constitutes a semantic unit based at least in part on application of the one or more rules.

27.   The device of claim 26, wherein the one or more rules are exclusionary rules that determine when certain sequences are not semantic units.

28.   A device comprising:

means for calculating a first value representing a coherence of terms in a sequence of terms;

means for calculating a second value representing variation of context in which the sequence occurs; and

means for determining whether the sequence is a semantic unit based at least in part on the first and second values.

29.   A computer-readable medium that includes programming
instructions configured to control at least one processor, the computer-readable
medium comprising:

instructions for calculating a first value representing a coherence of terms
in a sequence of terms;

instructions for calculating a second value representing variation of
context in which the sequence occurs; and

instructions for determining whether the sequence is a semantic unit
based on the first and second values.